UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,667	12/01/2000	Andrew Heller	5602-00800	5558

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Jeffrey C. Hood
Conley, Rose & Tayon, P.C.
P.O. Box 398
Austin, TX 78767-0398

EXAMINER
NGUYEN, MIKE

ART UNIT	PAPER NUMBER
2182	3

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No.	Applicant(s)
	09/728,667	HELLER ET AL.
	Examiner	Art Unit
	Mike Nguyen	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 October 2002</u> .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-54* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-54* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *1, 2*   6) ☐ Other: _____ .

DETAILED ACTION

Notices & Remarks

1.   Claims 1-54 are pending for the examination.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) do not apply to the examination of this application as the application being examined

was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment

by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-8, 10, 12-22, 24, 26-33, 36-38, 40-43, 46-48, and 50-54 are rejected under 35

U.S.C. 102(e) as being anticipated by Hwang et al. (U.S. Pat. No. 5,577,205).

3.   As to claim 1, Hwang teaches a computing system (see figure 1), comprising:

a computer card (see figure 1), wherein the computer card comprises:

a frame (see figures 4, 5 wherein it is inherently the computer card having a frame);

a printed circuit board mounted to the frame (see figures 1, 4, 5 element "TEAMPRO

CHASSIS");

a CPU comprised in the printed circuit board (see figure 1 element "CPU CARD" and column 5 lines 50-54);

a memory comprised on the printed circuit board (see figure 6 element "DRAM" and column 9 lines 4-21);

a non-volatile memory comprised on the frame (see figure 7 element "ROM" and column 9 lines 23-36);

human interface logic comprised on the printed circuit board which is operable to receive one or more human interface signals and encoded the one or more human interface signals into a format suitable for transmission to a remote location (see figure 1 elements "TEAMPANELS", "MONITOR", "KEYBOARD" and column 6 lines 1-25, 60-65 and column 7 lines 1-10); and

a human interface connector coupled to human interface logic, wherein the human interface connector is adapted to couple to one or more cables for transmission of the encoded one or more human interface signals to the remote location (see figure 2 elements "VGA CABLE", "KB CABLE" and column 7 lines 28-37).

4.   As to claim 2, Hwang teaches the computing system of claim 1, wherein the human interface logic is operable to encode the one or more human interface signals into a format suitable for transmission of a distance greater than 20 feet to the remote location (see column 6 lines 12-14).

5.   As to claim 3, Hwang teaches the computing system of claim 1, wherein the human interface logic is operable to receive two or more human interface signals and encode the two or more human interface signals into a format suitable for transmission to the remote location (see figure 1 and column 6 lines 1-25).

6.   As to claim 4, Hwang teaches the computing system of claim 3, wherein the two or more

human interface signals comprise two or more of a video signal, keyboard signal, and pointing

device signal (see column 6 lines 1-25, 60-65).

7.   As to claim 5, Hwang teaches the computing system of claim 3, wherein the two or more

human interface signals comprise three or more of a video signal, keyboard signal, pointing

device signal, and audio signal (see column 6 lines 1-25, 60-65).

8.   As to claim 6, Hwang teaches the computing system of claim 1, further comprising

keyboard logic comprised on the printed circuit board for interfacing to a keyboard (see figure 1

element "KEYBOARD"):

        wherein the keyboard logic is coupled to human interface logic (see figure 2 column 7

lines 28-37 wherein the computer's CPU card provides a remote access port for connecting the

CPU directly to the keyboard through the teampanels so it is inherently to have the keyboard

logic coupled to human interface logic);

        wherein the keyboard logic generated keyboard signals that are provided to the human

interface logic, wherein the one or more human interface signals include the keyboard signals

(see column 6 lines 60-65 and column 7 lines 28-37);

        wherein the human interface logic is operable to receive the keyboard signals (see

column 6 lines 1-25); and

        wherein the human interface logic is operable to encode the keyboard signals into a

format suitable for transmission to the remote location (see column 7 lines 10-37).

9.   As to claim 7, Hwang teaches the computing system of claim 1, further comprising

pointing device logic comprised on the printed circuit board for interfacing to a pointing device

(see column 60-65):

        wherein the pointing device logic is coupled to human interface logic (see figure 2

column 7 lines 28-37);

        wherein the pointing device logic generated pointing device signals that are provided to

the human interface logic, wherein the one or more human interface signals includes the

keyboard signals (see column 6 lines 60-65 and column 7 lines 28-37);

        wherein the human interface logic is operable to receive the pointing device signals (see

column 6 lines 1-25); and

        wherein the human interface logic is operable to encode the pointing device signals into a

format suitable for transmission to the remote location (see column 7 lines 10-37).

10.   As to claim 8, Hwang teaches the computing system of claim 1, further comprising:

        keyboard logic comprised on the printed circuited board for interfacing to a keyboard

(see figure 1 element "KEYBOARD"); and;

        pointing device logic comprised on the printed circuit board for interfacing to a pointing

device (see column 60-65);

        wherein each of the keyboard logic and the pointing device logic is coupled to the human

interface logic (see figure 2 column 7 lines 28-37 and column 6 lines 60-65);

        wherein the keyboard logic generates keyboard signals that are provided to the human

interface logic (see figure 1 and column 6 lines 60-65 and column 7 lines 28-37);

wherein the pointing device logic generates pointing device signals that are provided to

the human interface logic (see figure 1 and column 6 lines 60-65 and column 6 lines 60-65 and

column 7 lines 28-37); and

wherein the encoded one or more human interface signals include encode keyboard

signals and encode pointing device signals (see column 7 lines 10-37).

11.   As to claim 10, Hwang teaches the computing system of claim 1, further comprising

video logic comprised on the printed circuit board for interfacing to a video display device (see

figure 1 element "MONITOR"):

wherein the video logic is coupled to human interface logic (see figure 2 column 7

lines 28-37);

wherein the video logic generated video signals that are provided to the human

interface logic, wherein the one or more human interface signals include the video signals (see

column 7 lines 28-37);

wherein the human interface logic is operable to receive the video signals (see column 6

lines 1-25); and

wherein the human interface logic is operable to encode the video signals into a format

suitable for transmission to the remote location (see column 7 lines 10-37).

12.   As to claim 12, Hwang teaches the computing system of claim 1, further comprising

network interface logic comprised on the printed circuit board for interfacing to a network,

wherein the network logic is operable to encode network signals into a format suitable for

transmission to network (see figures 1, 2, 3 element "SCSI CARD" and column 8 lines 8-25).

13.   As to claim 13, Hwang teaches the computing system of claim 1, further comprising a power supply comprised on the frame, wherein the power supply is operable to couple to an external power source and supply power to computing system (see figure 1 element "UNITARY POWER SUPPLY" and column 5 lines 56-60).

14.   As to claim 14, Hwang teaches the computing system of claim 1, further comprising:

        a cage having a plurality of slots, wherein the computer card is adapted to be inserted into a slot of the cage, wherein the cage includes a cage connector which is adapted to couple to the human interface connector on the computer card, wherein the cage connector also includes an external second connector electrically coupled to the cage connector, wherein the external second connector is adapted for coupling to the one or more cables for transmission of the encode one or more human interface signals to the remote location (see figures 4, 5 and column 8 lines 26-67 and column 9 lines 1-3).

15.   Claims 15-22, 24, and 26-28 are of similar scope as claims 1-8, 10, and 12-14 and are therefore rejected under same rationale.

16.   Claims 29-30 are of similar scope as claim 1-2 and are therefore rejected under same rationale.

17.   Claim 31 is of similar scope as claim 6 and is therefore rejected under same rationale.

        Hwang also teaches a system comprising a plurality of computing systems, and a cage having a plurality of slots wherein each of slots is adapted to receive a computer card (see figures 4, 5 and column 8 lines 26-68 and column 9 lines 1-9); and a power supply comprised on the frame wherein the power supply is operable to couple to an external power source and supply

power to the computing system (see figure 1 element "UNITARY POWER SUPPLY" and

column 5 lines 56-60).

18.   As to claim 32, Hwang teaches the system of claim 31,

wherein each computer card further comprises network interface logic comprised on the

printed circuit board for interfacing to a network (see figures 1, 2, 3 and column 8 lines 8-25).

19.   As to claim 33, Hwang teaches the system of claim 32,

wherein each of the computer cards further includes one or more of video interface logic,

keyboard interface logic, and pointing device logic for generating video signals, keyboard

signals, and pointing device signals (see figure 1 and column 6 lines 60-65 and column 6 lines

60-65 and column 7 lines 28-37), respectively; and

wherein the one or more of the video interface logic, keyboard interface logic, and

pointing device logic are each adapted to couple to the human interface logic (see figure 2 and

column 6 lines 60-65 column 7 lines 10-37;

wherein the human interface is operable to receive one or more of the video signals, the

keyboard signals, and pointing device signals, and encode the signals into a format suitable for

transmission to the remote locations (see column 6 lines 1-25, 60-65); and

wherein the encoded one or more of the video signals, and the pointing device signals,

are comprised in the encode human interface signals (see column 60-65 and column 7 lines 10-

37).

20.   As to claim 36, Hwang teaches the system of claim 31,

wherein the cage further comprises a cage connector which is adapted to couple to the

human interface connector on each of the computer cards, wherein the cage connector also

includes an external second connector adapted for coupling to the one or more cables for

transmission of the encoded human interface signals to the remote location (see figures 4, 5 and

column 8 lines 26-68 and column 9 lines 1-3).

21.   As to claim 37, Hwang teaches the system of claim 36,

wherein the cage connector is further adapted to couple to the network interface logic on

each of the computer cards, wherein the external second connector is also adapted for coupling to

one or more network cables for coupling each of the computer cards to the network (see figure 3

and column 6 lines 40-60 and column 8 lines 8-25).

22.   As to claim 38, Hwang teaches the system of claim 36,

wherein each of the computer cards further includes one or more of video interface logic

for generating video signals, keyboard interface logic for generating keyboard signals, and

pointing device interface logic for generating pointing device signals (see figure 1 and column 6

lines 1-25, 60-65 and column 7 lines 10-37); and

wherein the cage connector is further adapted to coupled to the one or more of the video

interface logic, the keyboard interface logic, and the pointing device interface logic on each of

the computer cards, wherein the external second connector is also adapted for coupling to the one

or more cables for transmission of the one or more of the video signal, the keyboard signals, and

the pointing device signals, to the remote location (see figures 1, 2).

23.   As to claim 40, Hwang teaches the system of claim 31,

wherein the human interface logic is operable to encode the one or more human interface

signals into a format suitable for transmission of a distance greater than 20 feet to the remote

location (see column 6 lines 12-14).

24.   Claims 41-50 are of similar scope as claims 31-40 and therefore rejected under same

rationale.

25.   Claim 51 is of similar scope as claim 31 and is therefore rejected under same rationale.

        Hwang also teaches a plurality of human interfaces each located at a location remote

from the cage, wherein each of the human interfaces includes a display device and at least one

user input device (see figure 1 elements "MONITOR", "KEYBOARD"); and at least one cable

coupled between each computer card and a corresponding on of the human interfaces, wherein

each one cable is operable to communicate the one or more outgoing or incoming encode human

interface signals with the corresponding human interface (see figure 1 elements "VGA CABLE",

"KB CABLE" and column 6 lines 1-25).

26.   As to claim 52, Hwang teaches the system of claim 51,

        wherein the remote location is further than 20 feet from the cage (see column 6 lines 12-

14).

27.   As to claim 53, Hwang teaches the system of claim 51,

        wherein the cage further comprises a cage connector which is adapted to couple to the

human interface connector on each of the computer cards, wherein the cage connector also

includes an external second connector adapted for coupling to each of the one or more cables for

communication of the one or more encode outgoing or incoming human interface signals with

the corresponding human interface (see figures 4, 5 and column 8 lines 26-68 and column 9 lines

1-3).

28.   As to claim 54, Hwang teaches the system of claim 51,

wherein the each computer card further comprises network interface logic comprised on

the printed circuit board for interfacing to a network (see figure 2 element "TEAMHUB SCSI

CARD"); and

wherein the cage further comprises a cage connector which is adapted to couple to the

network interface logic on each of the computer cards, wherein the cage connector also includes

an external second connector adapted for coupling to one or more network cables for coupling

each of the computer cards to the network (see figure 3 and column 6 lines 40-60 and column 8

lines 8-25.

Claim Rejections - 35 USC § 103

29.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang

as applied claims 1 and 15 above, and further in view of Fleming (U.S. Pat. No. 6,073,188).

30.   As per claims 9, and 23, Hwang fails to explicitly teach: USB logic is coupled to human

interface logic; the USB logic generated USB signals that are provided to the human interface

logic wherein the one or more human interface signals includes the USB signals; the human

interface logic is operable to receive the USB signals; and the human interface logic is operable

to encode the USB signals into a format suitable for transmission to the remote location.

Fleming; however, teaches USB logic is coupled to human interface logic; the USB logic

generated USB signals that are provided to the human interface logic wherein the one or more

human interface signals includes the USB signals; the human interface logic is operable to

receive the USB signals; and the human interface logic is operable to encode the USB signals

into a format suitable for transmission to the remote location (see figure 1 element 122 and

column 4 lines 19-42). Given the teaching of Fleming, a person having ordinary skill in the art

would have readily recognized the desirability and advantages of modifying Hwang by

employing the well known or conventional feature of the computer system, such as taught by

Fleming, in order to provide convenient for connecting the human interface to computer system.

Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang

as applied claims 1 and 15 above, and further in view of Beasley et al. (U.S. Pat. No. 5,884.096).

31.   As per claims 11, and 25, Hwang fails to explicitly teach: audio logic is coupled to

human interface logic; the audio logic generated audio signals that are provided to the human

interface logic wherein the one or more human interface signals includes the audio signals; the

human interface logic is operable to receive the video signals; and the human interface logic is

operable to encode the audio signals into a format suitable for transmission to the remote

location. Beasley; however, teaches audio logic is coupled to human interface logic; the audio

logic generated audio signals that are provided to the human interface logic wherein the one or

more human interface signals includes the audio signals; the human interface logic is operable to

receive the video signals; and the human interface logic is operable to encode the audio signals

into a format suitable for transmission to the remote location (see figures 1, 2, 3 and column 3

lines 1-30). Given the teaching of Beasley, a person having ordinary skill in the art would have

readily recognized the desirability and advantages of modifying Hwang by employing the well

known or conventional feature of the computer system, such as taught by Beasley, in order to

allow a computer system to transmit audio signal to the remote location.

Claims 34, 39, 44, 49, 35 and 45 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hwang as applied claims 31 and 41 above, and further in view of Fleming and

Beasley et al.

32.   Claims 34, 39, 44, and 49 are directed to the system implementing the computer system

of claims 9, 23, 11, 25. Beasley and Fleming teaches the computer system as set forth in claims

9, 23, 11, 25; therefore they also teaches the system as set forth in claim 34, 39, 44 and 49.

33.   As per claims 35 and 45, Although Hwang shows substantial features (discussed in

claims 33 and 43), it fails to explicitly teach USB interface logic and encoded USB signals, and

audio interface logic and encoded audio signals. Fleming; however; teaches USB interface logic

and encoded USB signals (see figure 1 element 122 and column 4 lines 19-42); and Beasley

teaches audio interface logic and encoded audio signals (see figures 1, 2, 3).

Conclusion

34.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

U.S. Pat. No. 5,315,711 (Barone et al.)

U.S. Pat. No. 5,428,806 (Pocrass)

35.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Mike Nguyen whose telephone number is (703) 305-5040 or e-
mail is mike.nguyen@uspto.gov. The examiner can normally be reached on Monday through
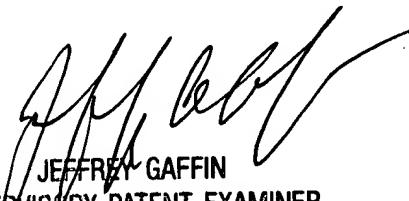Friday from 8:00 AM to 5:00 PM.
        The appropriate fax number for the organization where this application or proceeding is
assigned is (703) 746-7240.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jeffrey Gaffin, can be reached on (703) 308-3301.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-3900.

Mike Nguyen
Patent Examiner
Group Art Unit 2182

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

07/10/2003